



Notes from Wednesday November 18th State Stakeholders Mtg. 

Lynda Deschambault to AHEATH, alin, Amit Pathak, asiddigui,
avalmidi, dindermill, Dixon Oriola,
dstuck, dyoung, gbishop, gcrandall,
GFarkas, Ghu, hjones, IEdwards,
JFierro, jliu, JPropes, jscandura,
Kwangil Lee, ksanmigu, LParnass,
Michel Iskarous, mzaidi, nchang, 11/27/2009 03:21 PM
nmatsumoto, pbarni, pcho, Phuong Ly,
rgebart, Rita Kamat, Roberto Kou,
RKrug, rsenga, Su Han, shariri,
slavinger, Sara Michael, sunger, Scott
Warren, Tom.Perina, tpeng, twilliams,
Yue Rong, smichael

Sent by lynda deschambault
Cc Frederick Schaffler, Stephen Berninger, Linda Ketellapper,
tperina

Hello and Thank you again to those who attended our 2nd State Stakeholders Meeting on November 18th!

- Attached please find a copy of the November 18th attendees list. Please let me know if there are any edits or corrections needed.

A few notes and followup items

- **Round table introductions. Review of the background on Omega, Status of Superfund Process.**
EPA issued the RI for Omega in March 2009,
please see the report at: ftp://ftp.ch2m.com/Omega_RI_report/ User
ID: OmegaRI Password: OU2report
EPA plans to issue FS first of the year 2010
Selected remedy and public comment in late spring/early summer.
ROD by September 2010 .
We need your help to engage all state stakeholders in this expeditious process.
- **Communication Strategy. Discussed and "appointed" a contact person or "funnel" for each State Agency Office. A single point of contact to receive and pass along Omega information to their state agency office, especially to PMs and other colleagues interested in remedial actions in/near the 4.2 mile GW plume. see attached map of Omega Plume with state sites.**
--RWQCB contact will be **Adnon Siddiqui** (asiddiqui@waterboards.ca.gov) with
Art Heath as back up (aheath@waterboards.ca.gov)
--DTSC/ Cypress Office contact will be **Kathy San Miquel**
(ksanmiqu@dtsc.ca.gov)
--DTSC/ Chatsworth Office contact will be **Lori Parnass** (lparnass@dtsc.ca.gov)
- **Brief discussion of the roles and responsibilities of these contacts:**
Act as a conduit or funnel for all things Omega, and back to your office
colleagues
Please pass information along to your PRPs and contractors at your sites that are
potentially impacted by Omega.
Please communicate back to EPA if you find you are not able to forward

information.

EPA will assume interested parties in your office have been informed.
Let EPA know of staff changes, if new PMs should be included in informational emails

- **Discussed EPA's outreach efforts in the past. i.e has EPA told their state site PRPs about our process?**

EPA did send out a fact sheet. All Water board and DTSC Project managers agreed to forward these to their PRPs with a cc to me.

Please send out to your PRPs ASAP....and cc me. with both email and street address ...

I will be sure to add them to our OU2 outreach mailing in the future...and for notification for public comment period, too.

Please let me know of any others you'd like included in any OU2 notifications in the future.

The RI Fact sheet is attached.

- **Discussed the need to begin discussions on "process" some examples that came up included:**

EPA and state roles. art Health pointed out important of learning from San Gabriel and not to rush too fast. Think about "what if scenarios"....if state has already closed a site.....or state is thinking of closing a site.....or maybe state site is in process of remediation....or thinking of remediation. will there be opportunities to hand over work to EPA.....will EPA be weighing in on State remediation projects?

---everyone agreed to think about scenarios and send them to me.

Please send your thoughts by December 15th and we will include these in our next state stakeholders discussion meeting.

- **Update from Shanon on e-data pilot and general discussion of importance of sharing electronic database files**

Basically trying to get envirostor to be more like Geotracker. Note however, that Geotracker is state law. Envirostor is not.

Main issue is not the e-data pilot itself....but how best to share timely data with EPA in a useable format.

EPA list of sites of particular interest:

1)---Omega- yes, Lori Parnass says yes, participating in e-data pilot

2)---McKesson--yes, will participate in e-data pilot. Lori Parnass will provide Lynda and shanon the PRP contact .

Shanon will send letter explaining project, and lynda will send letter encouraging/thanking them for participation.

3) Phibrotech--Kathy said they want some assurance that only internal regulators have it, not the public.

Also want access to all the other data as well. Kathy will provide them with the RI data (see ftp above) and

She will set up a date and time asap for Kathy, Lynda and Phibrotech to talk. get them in the e-data pilot

4) Angeles--Steve Hariri, says happy to have EPA work directly with PRPs. He will provide best contact info

5) WDI --Yes, shanon says they are participating in the e-data pilot

6) Foss Plating -- Irena Edwards, points out that this is a tiered permitting site. Can be done now.

But No reason data can't go in Envirostor. Remember: not so much about pilot as it is about sharing data.

Should add Sandra Neice to the contacts list.

EPA will need access to the edata pilot. Shanon to followup.

- **Communication Strategy. Management involvement. Quarterly meetings.**

See how the strategy goes with the communication contacts we assigned today.
next meeting t include managers. WaterBoard to include Sam Unger. USEPA to include Fred Schauffler.

Try to find a data 2nd week of January that works for all of them.

Location: Waterboard office, downtown Los Angeles (near the red line)

Adnon, Lori and Shanon, could you please let me know of a couple dates in January that will work for you and your managers to meet?

Please Let me know if I forgot anything....

Lynda

Lynda Deschambault
Environmental Chemist
(415) 947-4183 phone
(415) 947-3526 fax

" The ultimate measure of a man [woman] is not where he [she] stands in moments of comfort and convenience but where he [she] stands at times of challenge and controversy." Rev. Dr. Martin Luther King Jr.



DTSC-RWQB Attendees Nov 18 FINAL.xls



Fact sheet Omega09_09.pdf



DTSC-RWQCB Sites Map_8-19-09_FINAL.pdf



DTSC Sites_Map Index_8-10-09_FINAL.PDF



RWQCB Sites_Map Index_8-10-09_FINAL.PDF

Lynda Deschambault Hello everyone, Just a reminder that we have...

11/12/2009 01:24:47 PM

From: Lynda Deschambault/R9/USEPA/US
To: >
Date: 11/12/2009 01:24 PM
Subject: meeting next Wednesday November 18th. at 1pm.

Hello everyone,

Just a reminder that we have a followup state stakeholders meeting next Wednesday November 18th. at 1pm.

This is a follow-up to our August 20th meeting (see emails below)
could you please RSVP, and let me know that you plan to participate?

Please let me know any ideas for agenda items.

Draft Agenda:

USEPA/DTSC/WB Coordination Meeting

Omega Chemical Superfund Site
Wednesday November 18, 2009 1-3 pm
WRD Office, 4040 Paramount Boulevard, Lakewood, CA 90712

Participants USEPA: Lynda Deschambault, facilitator, Tom Perina, CH2MHill EPA contractor
DTSC and Water Board contacts: Various Project Managers and Supervisors

- 1. Introductions: Brief Review of Goals/Mission**
- 2. Update on Omega Chemical Corporation Superfund Site**
 - Brief Review of background / History / Superfund process status**
 - Brief Review of Sites Located within and near Omega OU2**
 - Status and schedule for FS and Proposed Remedial Action Plan.**
- 3. Followup on August 20th discussions / action items.**
 - **Listserve or "funnel" for updates--Review accuracy of our list.**
 - **Communication Strategy. Management involvement. Quarterly meetings.**
 - **Databases: Envirostor and Geotracker:**
 - Update/Progress with DTSC on Envirostor and e-data project**
 - Update/Progress with DTSCWB on Geotracker**
 - **Communication Strategy. Management involvement. Quarterly meetings.**
- 4. New Items for discussion?**

Action Items

Lynda

Lynda Deschambault
Environmental Chemist
(415) 947-4183 phone
(415) 947-3526 fax

" The ultimate measure of a man [woman] is not where he [she] stands in moments of comfort and convenience but where he [she] stands at times of challenge and controversy." Rev. Dr. Martin Luther King Jr.

From: Lynda Deschambault/R9/USEPA/US
To: jliu@dtsc.ca.gov, JPropes@dtsc.ca.gov, ksanmigu@dtsc.ca.gov, lparnass@dtsc.ca.gov, SWarren@dtsc.ca.gov, slavinger@dtsc.ca.gov, jmarcos@dtsc.ca.gov, malonzo@dtsc.ca.gov, alin@waterboards.ca.gov, AHEATH@waterboards.ca.gov, doriola@waterboards.ca.gov, dindermill@waterboards.ca.gov, gcrandall@waterboards.ca.gov, hjones@waterboards.ca.gov, mzaidi@waterboards.ca.gov, nchang@waterboards.ca.gov, sunger@waterboards.ca.gov, shan@waterboards.ca.gov, twilliams@waterboards.ca.gov, asiddigui@waterboards.ca.gov, pli@wrdd.org
Cc: Frederick Schauflier/R9/USEPA/US@EPA, Stephen Berninger/R9/USEPA/US@EPA, Linda Ketellapper/R9/USEPA/US@EPA, deschambault.lynda@epa.gov
Date: 09/11/2009 02:27 PM
Subject: Omega Chemical and Collaboration with State Stakeholders

Hello State Stakeholders:

Thank you again to those who attended our August 20th meeting.

- Attached please find a copy of the attendees list. Please let me know if there are any edits or corrections needed.

NOT
RELEASABLE

AGENDA

Central and West Coast Basin Groundwater Contamination Forum
November 18, 2009, 10:00AM – 12:00PM
Water Replenishment District of Southern California
4040 Paramount Blvd., Lakewood, CA 90712 (562-921-5521)

1. Introductions
2. WRD's GIS capabilities
3. USEPA update on Omega Chemical site – Operable Unit 1 remediation & Operable Unit 2 remedial investigation
ou1: GWTS JULY 24
ou2: FS Internal Review
ou3: AOC Air 11/9
Select Remedy in spring
coordination, meeting
@ 1pm here. DTSC today.
WB reps needed.
Remedy to clean up
shallow.
give in
5/09
4. RWQCB updates on high-priority contaminated groundwater sites
5. DTSC updates on high-priority contaminated groundwater sites
6. DTSC/USEPA South Central Los Angeles Discovery Project
7. DTSC update on Hard Chrome Products site investigation & recent perchlorate sampling results
8. Replenishment Assessment Exemptions and Non-Consumptive Water Use Permits
9. New Water Bond and its potential for funding projects related to groundwater contamination
10. WRD Well Profiling Services
11. Select next meeting date/time (tentatively, March 18, 2010)

* Send ROD to phumay
* Send FTP to all attendees of the RI
+ correct ~~the~~ GWTS began 7/09
There is GW Quality Data (Semiannually)
Resend maps + encourage regulators to get involved.
See Sam gabriel website - They list public record.

Former Angeles Chemical Company, Inc.
 Key Facts At A Glance
 Last Update: 27-Oct-09

Location: 8915 Sorensen Avenue
 Santa Fe Springs, CA 90670
 Located in Central Basin, Montebello Forebay

Nearest Production Wells: Nearest active production well located ~1,300 feet (~0.24 mile) northwest of site (cross-gradient)
 (City of Santa Fe Springs Well #1, WRD #200022, State ID #2S/11W-30R03S, TD = 900 ft, Screen: 200 – 900 ft bgs)

Nearest active downgradient well located ~2 miles west-southwest of site
 (City of Pico Rivera Well #W8, WRD #200134, State ID #2S/12W-36M06S, TD = 627 ft, Screen: 277 – 584 ft bgs)

Surrounding Properties: To the east: Sorensen Avenue / To the south: Southern Pacific Railroad & McKesson Chemical Co.
 To the north: Plastall Metals Corporation / To the north & northwest: Air Liquide Corporation

Lead Agency/ Case No. DTSC Site Code #306001; EnviroStor #19290306;
 Project Manager: S. STEVEN HARIRI (714) 484-5332 shariri@dtsc.ca.gov

Latest Reports Reviewed:

Date of Report	Preparer	Title of Report
October 15, 2002	Blakely Environmental	Subsurface Investigation Phase 1 Report of Findings
December 4, 2003	Blakely Environmental	2003 3 rd Quarter Groundwater Monitoring Report
February 2004	Shaw Environmental	Summary Site Characterization Report
unknown		DTSC Site Hazard Ranking
May 2004	KOMEX	Final Remedial Investigation Report Operable Unit 2 - Deep Vadose Zone, Volume 2 of 2
November 2004	KOMEX	Monthly Progress Report
March 2005	KOMEX	Work Plan Operable Unit 3 – Remedial Investigation
April 2005	The Leu Group	Draft Remedial Action Work Plan
March 2007	DTSC	Final OU3 Groundwater Remedial Investigation Report
November 2008	Clean Soil, Inc.	2008 3 rd Quarter Groundwater and SVE Monitoring Report
February 2009	Clean Soil, Inc.	2008 4 th Quarter Groundwater Monitoring Report
April 2009	Clean Soil, Inc.	2009 1 st Quarter Groundwater Monitoring Report
August 2009	Clean Soil, Inc.	2009 2 nd Quarter Groundwater Monitoring Report

Description: The site is approximately 1.8 acres in size and completely fenced. From 1976 through 2000, Angeles Chemical Company, Inc. (ACC) operated as a petroleum solvents and chemicals wholesaler & distributor. ACC stored the chemicals at the site for the purpose of repackaging them into various containers for resale. The site included 34 underground storage tanks (USTs), rail cars, 4 aboveground storage tanks (ASTs), and numerous 55-gallon drums. Chemicals stored and used on site included but were not limited to: acetone, methylene chloride, chlorinated solvents, methyl ethyl ketone (MEK), toluene, xylene, isobutyl acetate, butyl cellosolve, propanol, kerosene, diesel, and unleaded gasoline.

During site decommissioning, 1 gasoline, 1 diesel, and 16 chemical USTs were excavated and removed; the remaining 16 USTs were decommissioned in place and slurry filled. Currently, the site is used to temporarily house storage containers and as a vehicle maintenance facility.

Site assessment activities have been conducted since 1990. In 1996, the site was separated into three operable units: Operable Unit 1 (OU-1) addressed soil in the northern portion of the site, Operable Unit 2 (OU-2) addressed soil in the southern portion of the site, and Operable Unit 3 (OU-3) addressed groundwater beneath the site.

Chemicals of Concern in GW: TPH as gasoline, VOCs, 1,4-Dioxane

CHEMICAL	CONC. IN GW (Jun 2009)
PCE	281 ug/L (Wells MW-25)
TCE	232 ug/L (Well MW-24)
1,1-DCE	838 ug/L (Well MW-14)
cis-1,2-DCE	453 ug/L (Well MW-14)
Vinyl chloride	140 ug/L (Well MW-21)
Benzene	43.2 ug/L (Well MW-15)
Ethylbenzene	68.9 ug/L (Well MW-15)

CHEMICAL	CONC. IN GW (Jun 2009)
1,2-DCA	20.3 ug/L (Wells MW-14)
1,1-DCA	1,370 ug/L (Well MW-21)
1,4-Dioxane	13,100 ug/L (Well MW-9)
TPH-gasoline (March 2009)	503,000* ug/L (Well MW-16)
1,2,4-Trimethylbenzene	378 ug/L (Well MW-21)
Naphthalene	26.5 ug/L (Well MW-21)

*Clean Soil, Inc. reports the TPH-gasoline concentration in Well MW-16 is an anomaly due to vehicle wash water breaching the well cap and contaminating the well.

Extent: Shallow aquifers are contaminated (Gaspur, Gage, & Hollydale Aquifers). Possible hydraulic connection to deeper water-supply aquifers. Free product has been detected in 8 of the 39 monitoring wells on site.

TCE is detected in the nearest production well (City of Santa Fe Springs Well #1) at concentrations up to 2.2 ug/L since 2004

A widespread groundwater contamination plume occurs across the Santa Fe Springs area within the shallow regional aquifers. VOC concentrations in GW at the site and southwest (downgradient) of the site are higher than VOC concentrations found in the Santa Fe Springs regional and upgradient of the site.

GW Monitoring: 26 GW monitoring wells (MW-1 through MW-26) on site; depth to GW ranges between 30 and 60 ft bgs

Since 2002, Wells MW-1 through MW-26 have been monitored quarterly; screen intervals vary, generally 10 to 20 foot intervals, 17 ft to 81 ft bgs; screened in the perched water zone and the A1 Zone (Hollydale Aquifer, ~50 to 80 ft bgs)

Hydrogeology: Shallow (perched) GW occurs within the Lakewood Formation. Deeper GW occurs in the Hollydale Aquifer (50 to 80 ft bgs, referred to as "A1 Zone"), which is the uppermost regional aquifer. Major water-producing aquifers in the region are the Lynwood Aquifer (~200 ft bgs), the Silverado Aquifer (~275 ft bgs), and the Sunnyside Aquifer (~600 ft bgs).

GW Flow Dir.: GW flow historically has been to the SW and NE.

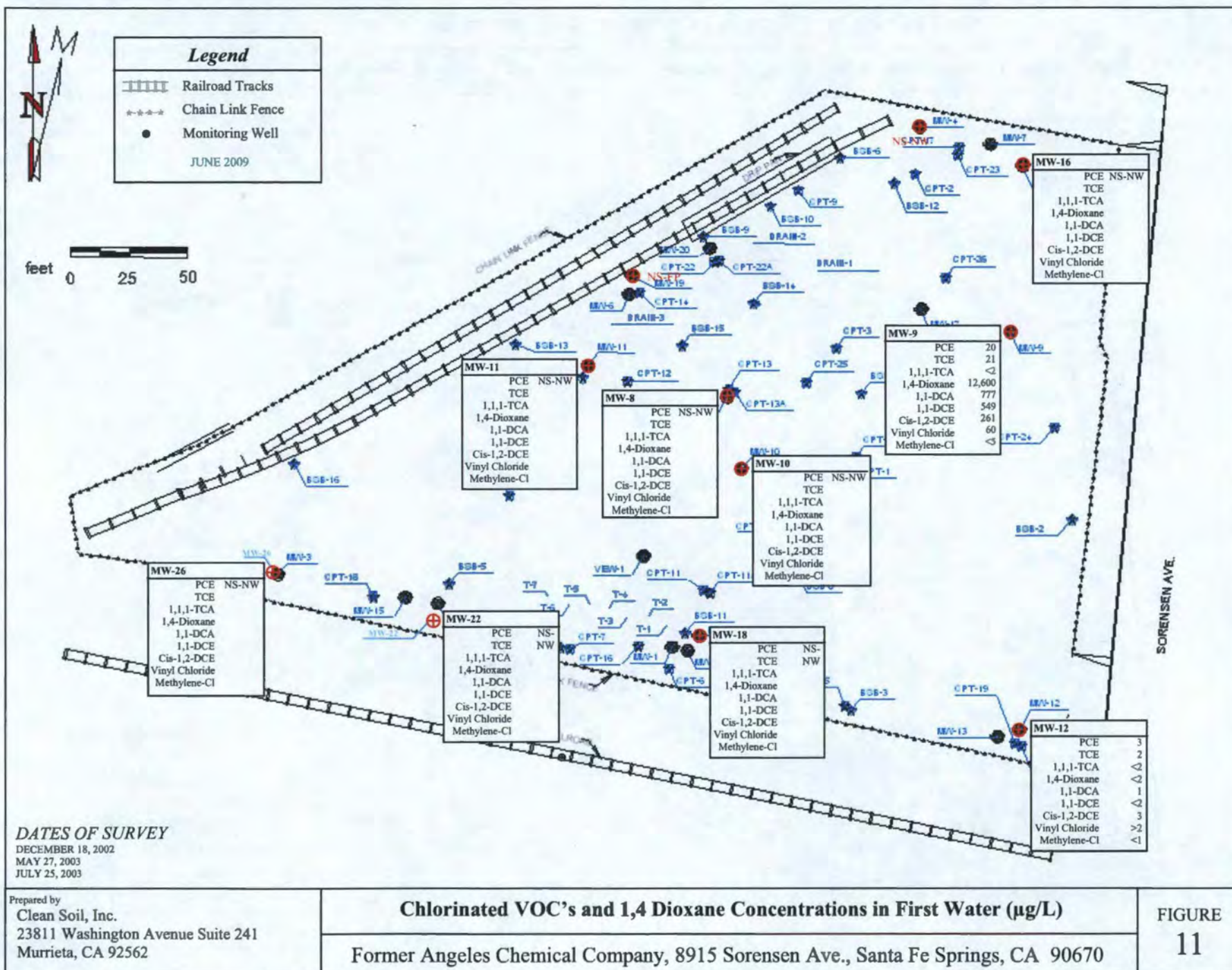
Remediation: Since 2005, an on-site SVE system (11 extraction wells) has been removing VOCs from soils in the areas of OU-1 and OU-2. Approx. 21,800 lbs of VOCs has been removed as of June 2009.

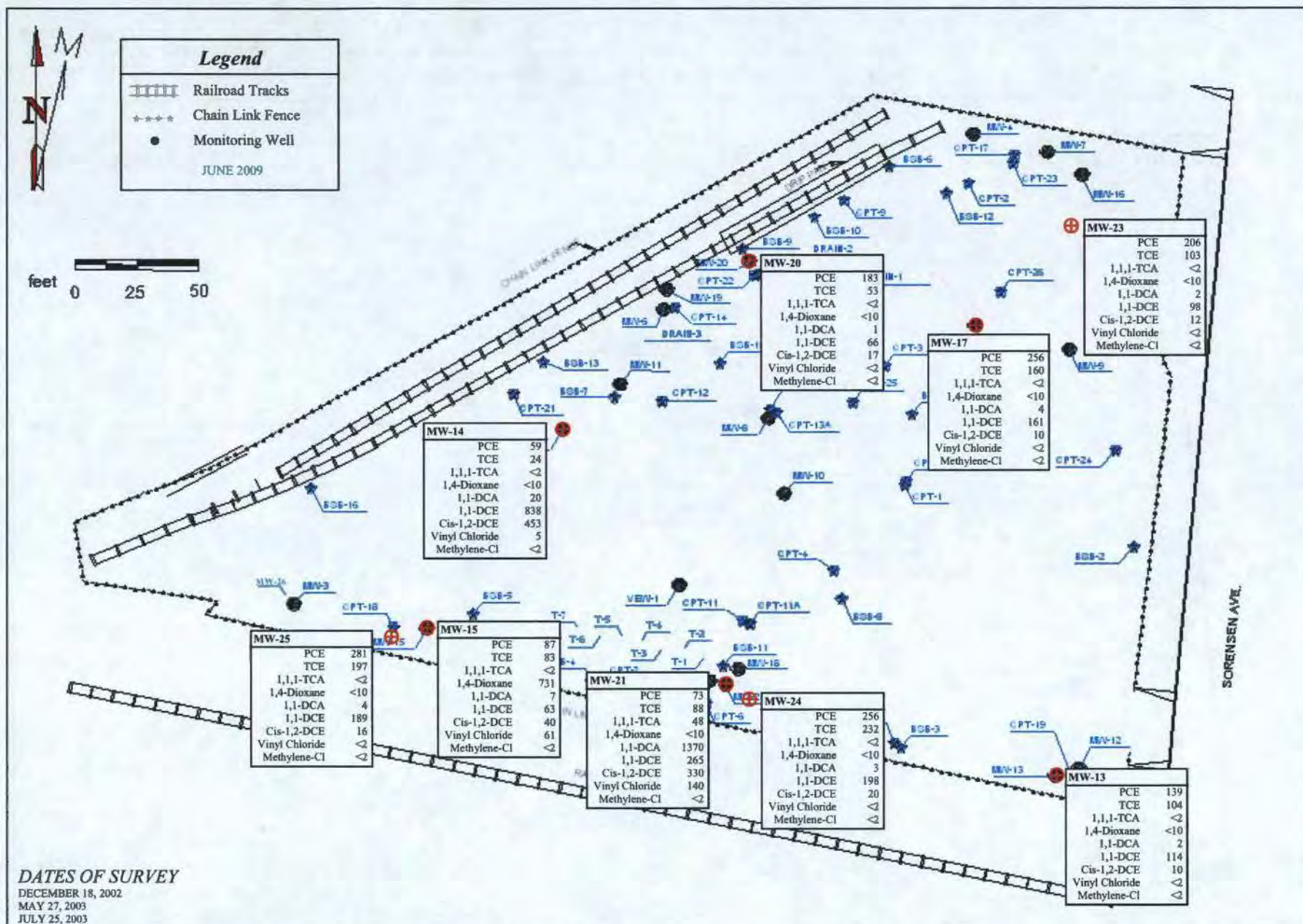
Free product in some monitoring wells has been removed by bailing in the past. In 2006, groundwater extraction was conducted at 3 wells on site. As of March 2009, a total of ~311 gallons of free product has been removed from the site.

Clean Soil concludes that the site is "experiencing intrinsic biodegradation," based on the VOC daughter constituents (1,1-DCA, 1,1-DCE, cis-1,2-DCE, and VC) that were detected during the 2nd Qtr 2009 GW mont event.

Procedures: Greve Financial Services has retained Clean Soil, Inc. (CSI) of Murrieta, California, to conduct site investigation activities.

In 2007, DTSC recommended ACC to prepare a Feasibility Study and Health Risk Assessment, followed by a Remedial Action Plan for OU-3.





Prepared by
 Clean Soil, Inc.
 23811 Washington Avenue Suite 241
 Murrieta, CA 92562

Chlorinated VOC's and 1,4 Dioxane Concentrations in Upper and Lower A1 Zones (µg/L)

Former Angeles Chemical Company, 8915 Sorensen Ave., Santa Fe Springs, CA 90670

FIGURE
 12

Former McKesson Chemical Company, Inc.
 Key Facts At A Glance
 Last Update: 07/30/2009

Location: 9005 Sorenson Avenue
 Santa Fe Springs, CA 90670
 Located in Central Basin, Montebello Forebay

Nearest Production Wells: Nearest active production well located ~1,400 feet (~0.26 mile) north-northwest of site (cross-gradient)
 (City of Santa Fe Springs Well #1, WRD #200022, State ID #2S/11W-30R03S, TD = 900 ft, Screen: 200 – 900 ft bgs)
 Nearest active downgradient well located ~2 miles west-southwest of site
 (City of Pico Rivera Well #W8, WRD #200134, State ID #2S/12W-36M06S, TD = 627 ft, Screen: 277 – 584 ft bgs)

Lead Agency/ DTSC / Envirostor ID #19280440; Site Code #300094;
Case File No.: Project Manager LORI PARNASS (818) 717-6546 lparnass@dtsc.ca.gov

Latest Reports Reviewed:

Date of Report	Preparer	Title of Report
December 2001	GeoSyntec Consultants	Summary of Additional Site Characterization Activities
2003	GeoSyntec Consultants	Quarterly Report – Third Quarter 2003
unknown		DTSC Hazard Ranking
May 3, 2005	GeoSyntec Consultants	Off-Property Investigation Report
November 2005	GeoSyntec Consultants	Third Quarter 2005 Groundwater Monitoring Report
February 22, 2007	GeoSyntec Consultants	Supplemental Feasibility Study
March 2007	GeoSyntec Consultants	Fourth Quarter 2006 Groundwater Monitoring Report
October 18, 2007	GeoSyntec Consultants	Additional Off-Property Investigation Report
October 26, 2007	GeoSyntec Consultants	Second Five-Year Review
December 28, 2007	DTSC	Approval Letter of Additional Off-Property Investigation Report
November 2008	TerraTherm, Inc.	Detailed Design Report, Thermally Enhanced Remediation
November 21, 2008	DTSC	Final Revised Explanation of Significant Difference for the 1993 Remedial Action Plan for On-Site Soil
July 21, 2009	GeoSyntec Consultants	First Quarter 2009 Groundwater Monitoring Report

Description: From 1976 to 1986, McKesson Chemical Company occupied the 4.3-acre site & operated as a bulk chemical (primarily chlorinated solvents) repackaging facility. Chemicals were stored in ASTs and USTs and piped to packaging areas. Bulk chemicals were transported to and from the site by truck and rail. When site operations ceased in 1986, all USTs and ASTs were emptied. In 1992, all ASTs were removed; in 1996, all USTs were removed. McKesson began investigations at the site in June 1984.

Immediately north of the site is the former Angeles Chemical Company, which had operated a chemical repackaging facility (existing WRD Category 1 GW contamination site) from 1976 through 2000. The site is also located within the Omega Chemical (existing WRD Category 1 GW contam site) plume.

Chemicals of concern in GW: VOCs, specifically solvents, and 1,4-dioxane

CHEMICAL	SHALLOW ZONE (GAGE) MAX CONC (Mar 2009)	A1 ZONE (UPPER HOLLYDALE) MAX CONC (Mar 2009)	A2 ZONE (LOWER HOLLYDALE) MAX CONC (Mar 2009)
1,1-Dichloroethane (1,1-DCA)	180 ug/L (Well SB-32)	1,100 ug/L (Well SB-36)	0.42 ug/L (Well SB-17A)
1,2-DCA	Not detected	53 ug/L (Well MPE-5)	0.77 ug/L (Well SB-17A)
1,1-Dichloroethene (1,1-DCE)	12 ug/L (Well SB-32)	470 ug/L (Well SB-36)	110 ug/L (Well SB-17A)
cis-1,2-DCE	110 ug/L (Well SB-32)	1,700 ug/L (Well SB-36)	4.4 ug/L (Well SB-17A)
1,1,1-Trichloroethane (TCA)	5.6 ug/L (Well MW-09)	2,400 ug/L (Well MPE-5)	Not detected

CHEMICAL	SHALLOW ZONE (GAGE) MAX CONC (Mar 2009)	A1 ZONE (UPPER HOLLYDALE) MAX CONC (Mar 2009)	A2 ZONE (LOWER HOLLYDALE) MAX CONC (Mar 2009)
Tetrachloroethene (PCE)	7.9 ug/L (Well MW-08s)	710 ug/L (Well SB-20)	170 ug/L (Well SB-17A)
Trichloroethylene (TCE)	6.4 ug/L (Well SB-32)	250 ug/L (Well MW-01)	160 ug/L (Well SB-17A)
Vinyl chloride	Not detected	230 ug/L (Well SB-07)	Not detected
1,4-Dioxane	17 ug/L (Well SB-32)	120 ug/L (Well SB-07)	3.7 ug/L (Well SB-17A)

Extent: VOCs detected in soil and GW (Hollydale Aquifer). Higher concentrations of VOCs detected off-site, approx. 1,500 linear ft downgradient of site

Since 2004, TCE has been detected in nearest production well (City of Santa Fe Springs Well #1) at concentrations up to 2.2 ug/L. TCE and PCE have been occasionally detected in the nearest downgradient well (City of Pico Rivera Well #W8), but were not detected in the most recent sampling event in November 2008.

Monitoring: 24 GW monitoring/extraction wells at the site; quarterly sampling of all GW monitoring wells

GW Gradient: In the A1 zone, GW flows to the west-southwest with a hydraulic gradient of 0.0095 ft/ft. (March 2009)

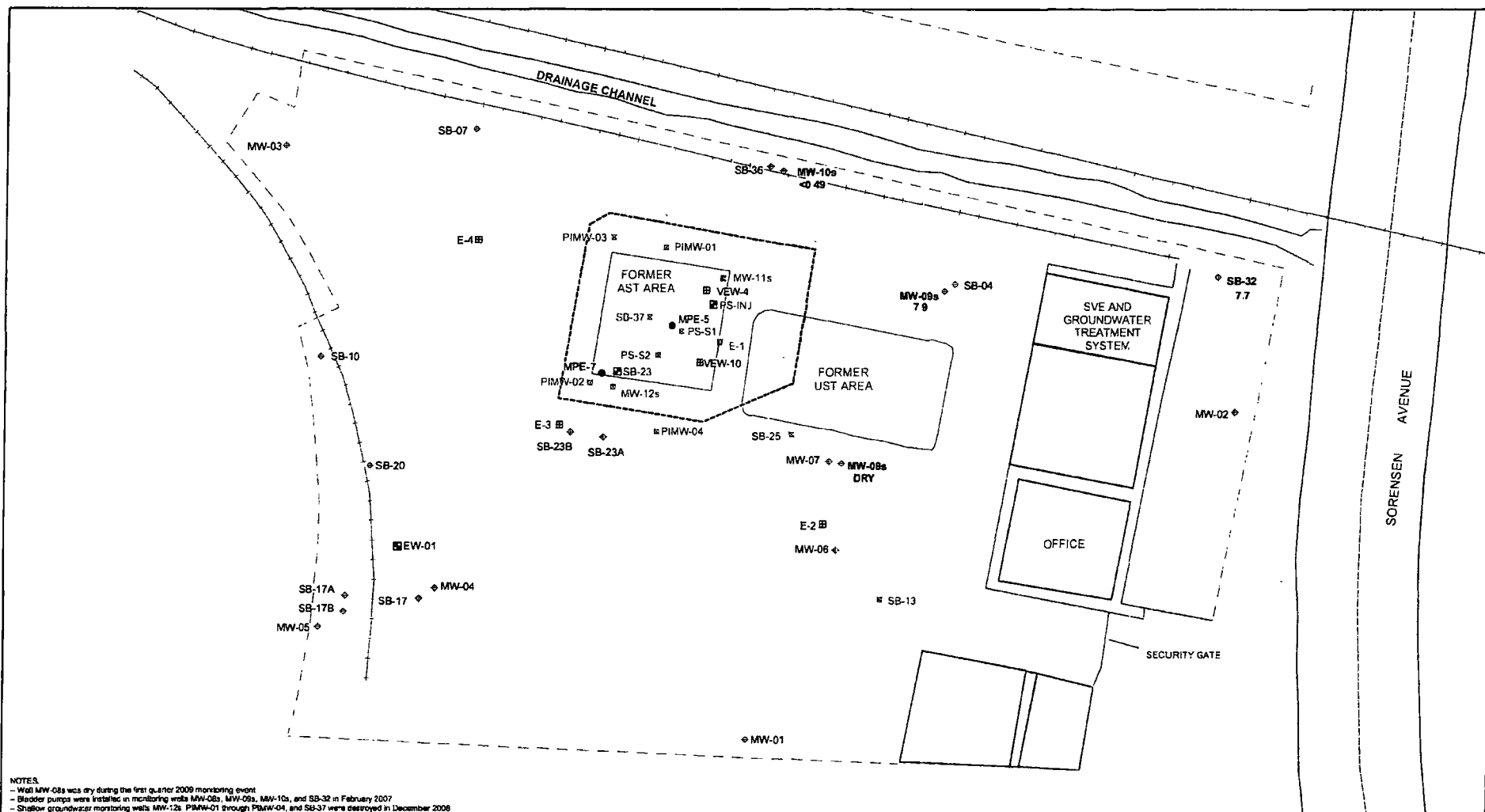
AQUIFER (from shallow to deep)	DESCRIPTION	DEPTH OF AQUIFER	DEPTH TO WATER (March 2009)
1. Shallow/Perched GW zone	Part of Gage Aquifer	25 to 35 ft bgs	~30 to 35 ft bgs
2. A zone	A1 zone	Upper Hollydale Aquifer	45 to 75 ft bgs
	A2 zone	Lower Hollydale Aquifer	90 to 120 ft bgs
3. B zone	Part of Jefferson Aquifer	135 to 275 ft bgs	No mont wells screened in this zone

Remediation: Since 1999, GW extraction (3 extraction wells, Wells EW-1, SB-23, & PS-INJ) and treatment with an air stripper (discharge to sewer) has been conducted.

Since 1994, SVE (4 extraction wells, Wells E-1, E-2, E-3, & MW-11s) has been removing VOCs from the subsurface.

Procedures: McKesson retains GeoSyntec Consultants of Oakland, CA, to manage site investigation/remediation activities & reporting to DTSC.

An in-situ thermal treatment system for soils (maximum depth of 65 ft bgs) has been constructed at the site, including destruction of GW extraction wells PS-INJ & SB-23 and vapor extraction wells MW-11s & E-1. *At the July 30, 2009 Groundwater Contamination Forum, Lori Parnass of DTSC reported that the vapor extraction wells have been constructed and they are currently obtaining the AQMD permit for the thermal treatment system. SVE and GW extraction will continue at the site once the in-situ thermal treatment commences.*



NOTES:
 - Well MW-08s was dry during the first quarter 2009 monitoring event
 - Bladder pumps were installed in monitoring wells MW-08s, MW-09s, MW-10s, and SB-32 in February 2007
 - Shallow groundwater monitoring wells MW-12s, PIMW-01 through PIMW-04, and SB-37 were destroyed in December 2008

Legend

◆ MW-09s	Well Location and Name	◆	Groundwater Monitoring Well	■	Destroyed Groundwater Monitoring Well	□	Surface Cover	- - -	Cyclone Fence
7.9	PCE Concentration (ug/L)	■	Groundwater Extraction Well	■	Destroyed Groundwater Extraction Well	□	Building	- - -	Railroad Track
NS	Not Sampled	■	Vapor Extraction Well	■	Destroyed Vapor Extraction Well				
PCE	Tetrachloroethene	●	Multi-Phase Extraction Well						

NOTE: Base map adapted from site plans prepared by Geomatrix (2001)

0 25 50 Feet

Geosyntec
consultants

Project No. WR1216

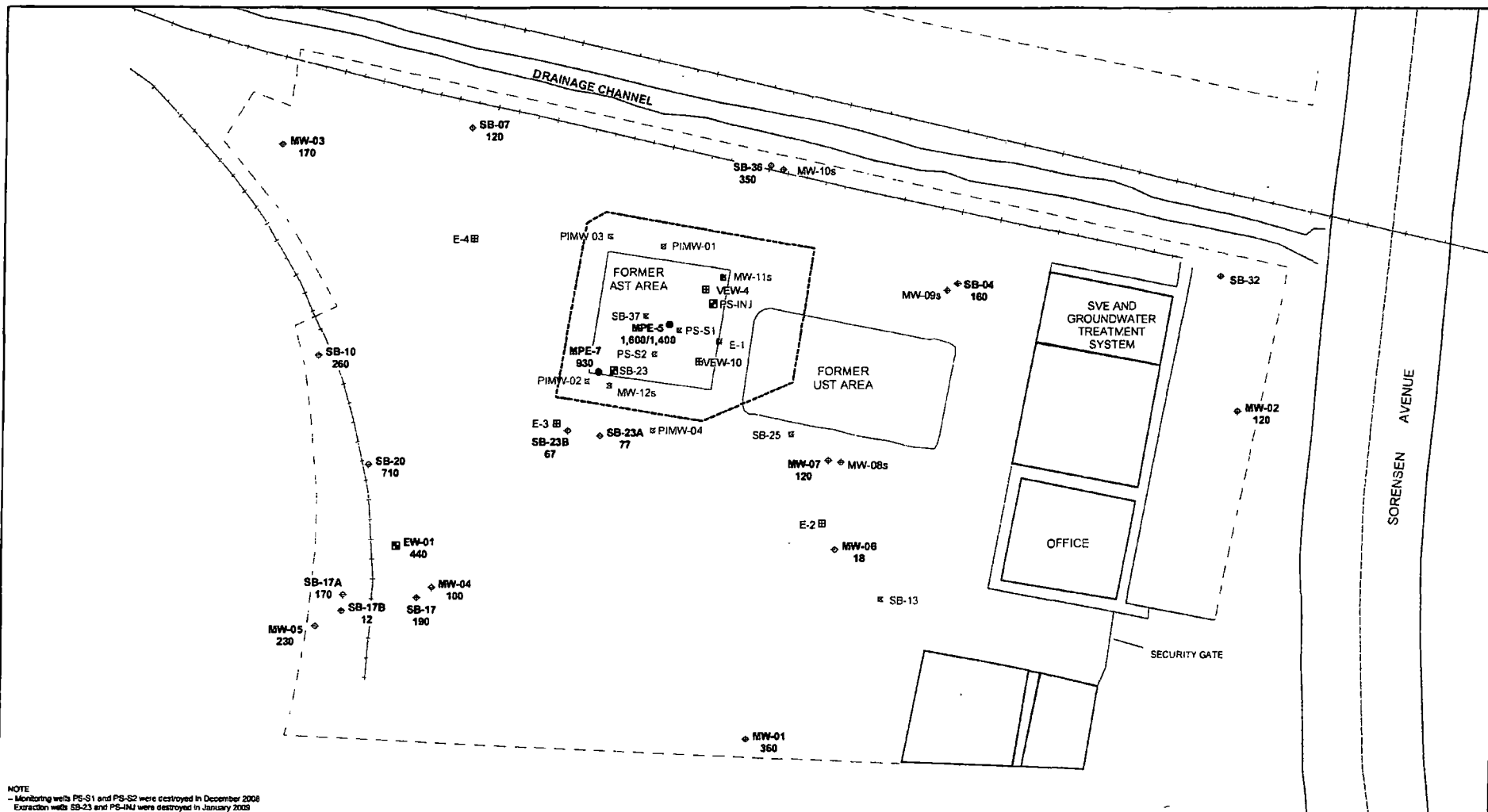
June 2009

Oakland

Figure 7

**PCE (ug/L) Concentrations in
Shallow Groundwater - March 2009**

Former McKesson Chemical Company Facility
Santa Fe Springs, California



NOTE
 - Monitoring wells PS-S1 and PS-S2 were destroyed in December 2008
 Extraction wells SB-23 and PS-INJ were destroyed in January 2009

Legend

- | | | | | |
|---|-------------------------------|---|-----------------|----------------------|
| ◆ EW-01 Well Location and Name
440 PCE Concentration (ug/L)
1,600/1,400 Duplicate Sample
PCE Tetrachloroethene | ◆ Groundwater Monitoring Well | ◆ Destroyed Groundwater Monitoring Well | ▭ Surface Cover | - - - Cyclone Fence |
| | ▭ Groundwater Extraction Well | ▭ Destroyed Groundwater Extraction Well | ▭ Building | - - - Railroad Track |
| | ▭ Vapor Extraction Well | ▭ Destroyed Vapor Extraction Well | | |
| ● Multi-Phase Extraction Well | | | | |

NOTE: Base map adapted from site plans prepared by Geomatrix (2001)

0 25 50 Feet

Geosyntec
consultants

Project No. WR1216

June 2009

Oakland

Figure 12

PCE (ug/L) Concentrations in
A1 & A2 Groundwater - March 2009

Former McKesson Chemical Company Facility
Santa Fe Springs, California

Phibro-Tech Inc. (aka, Southern California Chemical, Entech Recovery Inc.)

Key Facts At A Glance

Last Update: 8/21/2009

Location: 8851 Dice Road,
Santa Fe Springs, CA 90670
Located in Central Basin, Montebello Forebay

Nearest Production Wells: Nearest active production well located ~970 feet (~0.2 mile) northeast of site (cross-gradient)
(City of Santa Fe Springs Well #1, WRD #200022, State ID #2S/11W-30R03S, TD = 900 ft, Screen: 200 – 900 ft bgs)

Nearest active downgradient well located ~1.75 miles southwest of site
(City of Pico Rivera Well #W8, WRD #200134, State ID #2S/12W-36M06S, TD = 627 ft, Screen: 277 – 584 ft bgs)

Surrounding Properties: Properties to the north, east, and west are developed with industrial, manufacturing or warehouse facilities
The site is bordered by the Union Pacific Railroad to the south, followed by manufacturing or industrial facilities

Lead Agency/ Case File No.: DTSC / EnviroStor ID #19280516; DTSC Site Code #300142; EPA ID #CAD008488025
Project Manager: KATHY SAN MIGUEL (714) 484-5380 ksanmigu@dtsc.ca.gov

Latest Reports Reviewed:

Date of Report	Preparer	Title of Report
August 2006	Iris Environmental	Revised Comprehensive Soil Vapor Survey Report and SVE Pilot Test Work Plan
August 2006	Iris Environmental	Revised Draft Water Quality Sampling and Analysis Plan
November 2006	Iris Environmental	Expanded Alternative Groundwater Corrective Action Work Plan
July 2007	Iris Environmental	April 2007 Quarterly Sampling Report
August 15, 2007	Iris Environmental	Data Gap Investigation Report
September 2007	Spectrum Analytical	Treatability Report
September 2007	Iris Environmental	Groundwater Corrective Action Pilot Test Work Plan
October 24, 2007	Iris Environmental	Addendum to Data Gap Investigation Report
March 25, 2008	DTSC	Approval of Soil Vapor Extraction and Bioventing Pilot Test Report
May 8, 2008	Iris Environmental	Remedial Design and Implementation Package – Soil Vapor Extraction System
May 29, 2008	Iris Environmental	Revised Groundwater Corrective Action Pilot Test Work Plan
June 2008	ENSR Corporation	Health Risk Assessment [to add new treatment system (including 10 USTs) for treatment, storage, and transfer of oily wastewater]
June 17, 2008	DTSC	Comments on Data Gap Investigation Report
June 27, 2008	DTSC	Approval of Groundwater Corrective Action Pilot Test Work Plan
October 27, 2008	Iris Environmental	July 2008 Quarterly Sampling Report
February 17, 2009	Iris Environmental	October 2008 Quarterly Sampling and 2008 Annual Groundwater Monitoring Report
July 27, 2009	Iris Environmental	Response to Notification of Additional Information – Form 200, Report of Waste Discharge, Injection of Calcium Polysulfide Solution

Description: Phibro-Tech Inc. operates a 4.8 acre material processing facility in a highly industrialized area. The site was historically used as a railroad switching station, foundry casting facility, and chemical facility. Currently, the facility receives various hazardous aqueous wastes and recyclable materials mostly from the electronic and aerospace industries and treats these substances to create usable new products that are sold. The solutions treated are corrosives, typically containing copper, iron, ammonium fluoride, tin, lead, chromium, nickel, heavy metals, sulfates, chlorides and hydroxides. The facility historically had a surface impoundment which leaked to the groundwater. The surface impoundment is currently used as secondary containment for treatment tanks. According to the DTSC Project Manager Kathy San Miguel, Phibro-Tech is working with DTSC to properly close this surface impoundment/secondary containment, i.e. permanently cap the area and limit its usage. Since 1988, a variety of investigative activities in the soil and groundwater zones have occurred at the site.

Chemicals of concern in GW: Total chromium, chromium VI, cadmium and chlorinated VOCs

CHEMICAL	MAX CONC. IN GW (Oct 2008)
PCE	150 ug/L (Well MW-06B)
TCE	220 ug/L (Well MW-14S)
1,1-DCE	27 ug/L (Well MW-14S)
1,1-DCA	110 ug/L (Well MW-14S)
1,2-DCA	58 ug/L (Well MW-03)

CHEMICAL	MAX CONC. IN GW (Oct 2008)
Carbon tetrachloride	11 ug/L (Well MW-03)
cis-1,2-DCE	39 ug/L (Well MW-14S)
Total Chromium	1,300 ug/L (Well MW-14S)
Chromium VI	1,600 ug/L (Well MW-14S)
Cadmium	710 ug/L (Well MW-04)

Extent: The vadose zone (unsaturated Gage Aquifer and underlying unnamed aquitard) and GW (saturated Hollydale Aquifer) is contaminated with hexavalent chromium (Cr VI), various metal ions (heavy metals), & halogenated and aromatic VOCs. Upper Hollydale occurs just below the unnamed aquitard at typical depths between 50 and 55 ft bgs.

Since 2004, TCE is detected in the nearest production well (City of Santa Fe Springs Well #1) at concentrations up to 2.2 ug/L.

GW Monitoring: There are a total of 28 on-site groundwater monitoring wells. Of the 28 wells, one well (MW-06A) is screened in the shallow and consistently unsaturated Gage Aquifer, 20 wells screened in the upper portion of the underlying Hollydale Aquifer (including 4 new wells installed in June 2007), and 7 wells screened in the lower portion of the Hollydale Aquifer. Quarterly groundwater monitoring of 14 wells is conducted.

According to a phone conversation with the DTSC Project Manager Kathy San Miguel on June 24, 2009, only 14 of the 28 wells are monitored because these were the wells approved in the original Water Quality Sampling and Analysis Plan (WQ SAP). Phibro-Tech intends to modify the WQ SAP in the near future to include some of the newly installed wells and destroy some of the 14 original monitoring wells. It appears that some of the original 14 wells may be conduits for vertical migration due to their poor construction.

Hydrogeology/GW Gradient:

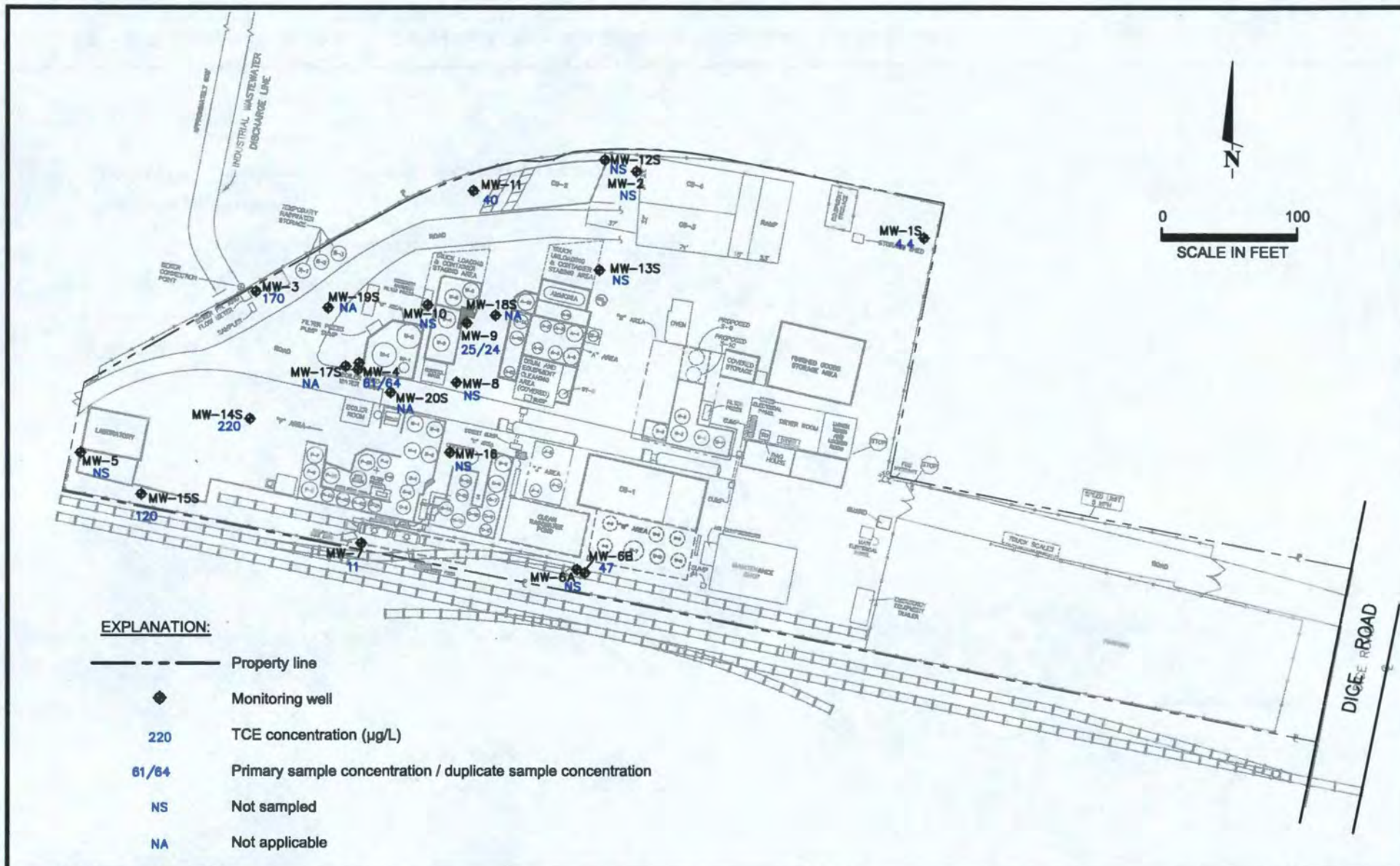
Aquifer/Aquitard Beneath Site (Shallow to Deep)	Typical Depth	GW Flow Direction (Oct 2008)	Avg. GW Gradient (Oct 2008)
1. unsaturated Gage Aquifer	~15 to 29 ft bgs	Not applicable	Not applicable
2. unnamed aquitard	~25 to 56 ft bgs	Not applicable	Not applicable
3. saturated upper Hollydale Aquifer	Begins @ ~45 to 56 ft bgs	Southwest	0.0044 feet per foot (ft/ft)
4. saturated lower Hollydale Aquifer	Wells screened from 78 to 123 ft bgs	Southwest	0.0058 ft/ft

Remediation: Since October 2008, an SVE system (7 extraction wells) has been removing VOCs from soil beneath the site.

Procedures: Iris Environmental (Oakland, CA) is retained by Phibro Tech Inc. to perform quarterly groundwater monitoring.

According to a phone conversation with the DTSC Project Manager Kathy San Miguel on June 24, 2009, Phibro-Tech is in the process of obtaining a wastewater discharge permit from RWQCB to conduct a pilot study for soil and shallow GW remediation, specifically chemical oxidation (calcium polysulfide injection), at the site. Bench scale tests using calcium polysulfide seem to indicate a reduction in chromium VI and VOCs at the site.

There have been discussions between Phibro-Tech and Omega Chemical (regional VOC plume). Phibro-Tech believes they are not contributing to the regional VOC plume because upgradient VOC concentrations are higher than downgradient VOC concentrations.



IRIS ENVIRONMENTAL
 1438 Webster Street, Suite 302
 Oakland, California 94612
 Ph. (510) 834-4747 Fax: (510) 834-4199

TCE Concentrations - Upper Hollydale Aquifer
October 2008
 Phibro-Tech, Inc. - Santa Fe Springs, California

Figure
6

Drafter: EC

Date: 12/12/08

Contract Number: 06-441-C

Omega Chemical
Key Facts At A Glance
Last Update: 11/2/2009

*EPA has not reviewed
Fastack should clarify
This is WRD*

Location: 12504 East Whittier Boulevard
Whittier, CA 90602
Located in Central Basin, Whittier Area

Nearest Production Wells: Nearest production well located ~5,900 feet (~1.1 miles) south-southwest of site
(Whittier Union High School District Well #SH550, WRD #200023, State ID #2S/11W-32J04S,
TD = 804 ft bgs, Screen 228-780 ft bgs)

Nearest downgradient drinking water production well located ~6,900 feet (~1.3 miles) southwest of site
(Santa Fe Springs Well #1, WRD # 200022, State ID #2S/11W-30R03S, TD = 900 ft bgs, Screen: 200 – 900 ft bgs)

Lead Agency/ USEPA / #CAD042245001;
Case File No.: Remedial Project Manager (RPM): Lynda Deschambault (415) 947-4183 Deschambault.Lynda@epamail.epa.gov

Latest Reports Reviewed:

REPORT DATE	PREPARER	TITLE OF REPORT
September 2003	USEPA	Fact Sheet: Omega Chemical Superfund Site Update
November 2004	USEPA	Fact Sheet: EPA Evaluates Indoor Air at Omega Chemical Site
August 2005	USEPA	Fact Sheet: Proposed Plan for Interim Groundwater Action
August 2005	USEPA	Presentation, Public Meeting
September 7, 2005	USEPA	Action memorandum: Request for Removal Action, Omega Chemical Superfund Site
April 2006	USEPA	Action Memorandum for Vapor Intrusion: Request for Removal Action
November 11, 2006	CDM	Letter to County Sanitation Districts of Los Angeles County: Discharge and Reuse Options for Treated Groundwater, Proposed Groundwater Treatment System
January 2007	USEPA	Fact Sheet: Omega Chemical Superfund Site Update
November 14, 2007	CDM	Final On-Site Soils Remedial Investigation Report, Omega Chemical Superfund Site
February 2008	USEPA	Fact Sheet: Update on Site Activities
June 2008	USEPA	Fact Sheet: Proposed Plan for Soil Cleanup
March 2009	CH2M HILL	Draft Remedial Investigation Report, Omega Chemical Corporation Superfund Site Operable Unit 2
September 2009	USEPA	Fact Sheet: EPA Issues Draft Remedial Investigation Report for Downgradient Plume at Omega Site

Description: The Omega Chemical site is an EPA National Priority List (NPL) site, receiving cleanup monies from the EPA Trust Fund. The site is the result of improper waste disposal at a former hazardous waste treatment and storage facility, known as the Omega Chemical Corporation (Omega), which operated as a refrigerant/solvent recycling facility from 1976 to 1991.

The former Omega Chemical facility provided treatment of commercial and industrial solid and liquid wastes and a transfer station for the storage and consolidation of wastes to be shipped to other treatment and/or disposal facilities. Omega Chemical maintained 11 treatment units comprised of distillation columns, reactors, wipe film processor, liquid extractor, a solid waste grinder, and multiple above and underground tanks. During the late 1990s, as part of the site cleanup, thousands of drums of hazardous wastes and materials were removed from the site, sumps with contaminated water were drained, contaminated equipment was removed, etc. The property is occupied by a vacant office building and a warehouse, with concrete paving covering all exterior areas. The warehouse is leased to an auto body shop.

To better handle larger site cleanups, EPA often separates cleanup actions into parts called Operable Units. At the Omega site, OU-1 includes soil and groundwater contamination on and near the site, OU-2 includes groundwater contamination that has migrated ~4.5 miles downgradient (south-southwest) of OU-1, and OU-3 comprises of the indoor air contamination at the site and surrounding properties. OU-1 activities are being paid for by the Omega Chemical Site PRP Organized Group (OPOG); OU-2 activities are temporarily being paid for ("fund lead") by EPA. The other PRP group is Omega Chemical Site Small Volume PRP Organized Group (OSVOG), which consists of small volume generators.

Constituents of Concern in GW: VOCs, Freon 11, Freon 113, 1,4-Dioxane, hexavalent chromium (Cr VI), perchlorate

CHEMICAL	MAX. CONC IN OU-1/OU-2 GW (Jul or Aug 2007)
Carbon tetrachloride	ND / 180 ug/L
Chlorobenzene	0.47 / 500 ug/L
DBCP	NA / 8.5 ug/L
EDB	NA / 3.4 ug/L
1,1-DCA	13 / 200 ug/L
1,2-DCA	39 / 2,600 ug/L
1,1-DCE	710 / 5,100 ug/L
trans-1,2-DCE	14 / 160 ug/L
cis-1,2-DCE	2.3 / 370 ug/L
cis-1,3-Dichloropropene	ND / 3.8 ug/L
trans-1,3-Dichloropropene	NA / 4.6 ug/L
Benzene	1.6 / 180 ug/L
Toluene	1.2 / 1,300 ug/L
MTBE	ND / 270 ug/L

CHEMICAL	MAX. CONC IN OU-1/OU-2 GW (Jul or Aug 2007)
Freon 11	180 / 1,000 ug/L
Freon 113	730 / 2,800 ug/L
Methylene chloride	110 / 20,000 ug/L
PCE	90,000 / 210,000 ug/L
TCE	2,600 / 10,000 ug/L
1,1,2,2-Tetrachloroethane	ND / 5.6 ug/L
1,1,1-Trichloroethane	2,200 / 14,000 ug/L
1,1,2-Trichloroethane	6.2 / 2,000 ug/L
Vinyl chloride	ND / 4 ug/L
Chloroform	130 / 3,200 ug/L
1,4-Dioxane	290 / 72,000 ug/L
Acetone	ND / 12,000 ug/L
Carbon disulfide	NA / 240 ug/L

OTHER CHEMICALS	MAX. CONC IN OU-2 GW (Jul & Aug 2007)
Aluminum	29,800 ug/L
Antimony	25.5 ug/L
Arsenic	64.7 ug/L
Chromium	174 ug/L
Mercury	7.3 ug/L
Nickel	127 ug/L
Perchlorate	10 ug/L
Selenium	227 ug/L
Thallium	28 ug/L

OTHER CHEMICALS	MAX. CONC IN OU-2 GW (Jul & Aug 2007)
bis(2-Ethylhexyl)phthalate	80 ug/L
Iron	173,000 ug/L
Manganese	4,400 ug/L
Chromium VI	206 ug/L
NDMA	0.9 ug/L
1,2,3-Trichloropropane	0.087 ug/L
Vanadium	128 ug/L

Extent:

The contaminated groundwater plume extends ~4.2 miles to the south-southwest (downgradient), across portions of the cities of Whittier and Santa Fe Springs., and reaches approx. 5,000 feet maximum width. Vertical extent of contamination is between 0 and 200 ft bgs – probably Bellflower Aquiclude/Gage Aquifer only; based on investigation work to date, site is underlain by Bellflower Aquiclude from ground surface to at least 120 feet bgs, uppermost aquifer identified in site vicinity is Gage Aquifer (at ~70 feet bgs along Putnam Street immediately south of site, seems to pinch out and is not present beneath site).

The nearest downgradient production well (City of Santa Fe Springs Well #1) is contaminated with PCE and TCE; the November 2008 concentrations were 0.75 ug/L and 2.2 ug/L, respectively. Concentrations appear to be increasing in the well.

GW Gradient:

The average shallow groundwater gradient along the flow path from the site to the farthest downgradient well is 0.0049 ft/ft. Depth to GW at OU-1 and OU-2 ranges from 22.90 ft bgs to 92.07 ft bgs. Groundwater at OU-1 generally occurs at a depth of approx. 70 ft bgs. Based on the period of Omega Chemical's operations, plume migration was calculated by USEPA to be ~540 ft/yr.

GW Monitoring:

Since May 2001, periodic sampling of ~74 monitoring on- and off-site wells associated with Omega Chemical. Since March 2004, semi-annual sampling has been conducted in February and August each year.

Remediation:

In 1995, a group of PRPs (including generators of hazardous waste that had shipped major quantities of material to Omega), later known as the Omega Chemical Site PRP Organized Group (OPOG), performed removal of ~2,700 drums containing hazardous materials and wastes from the site, under the oversight of USEPA. Soil & GW investigations were initiated later in 1995, and the most highly contaminated soils were removed from the site.

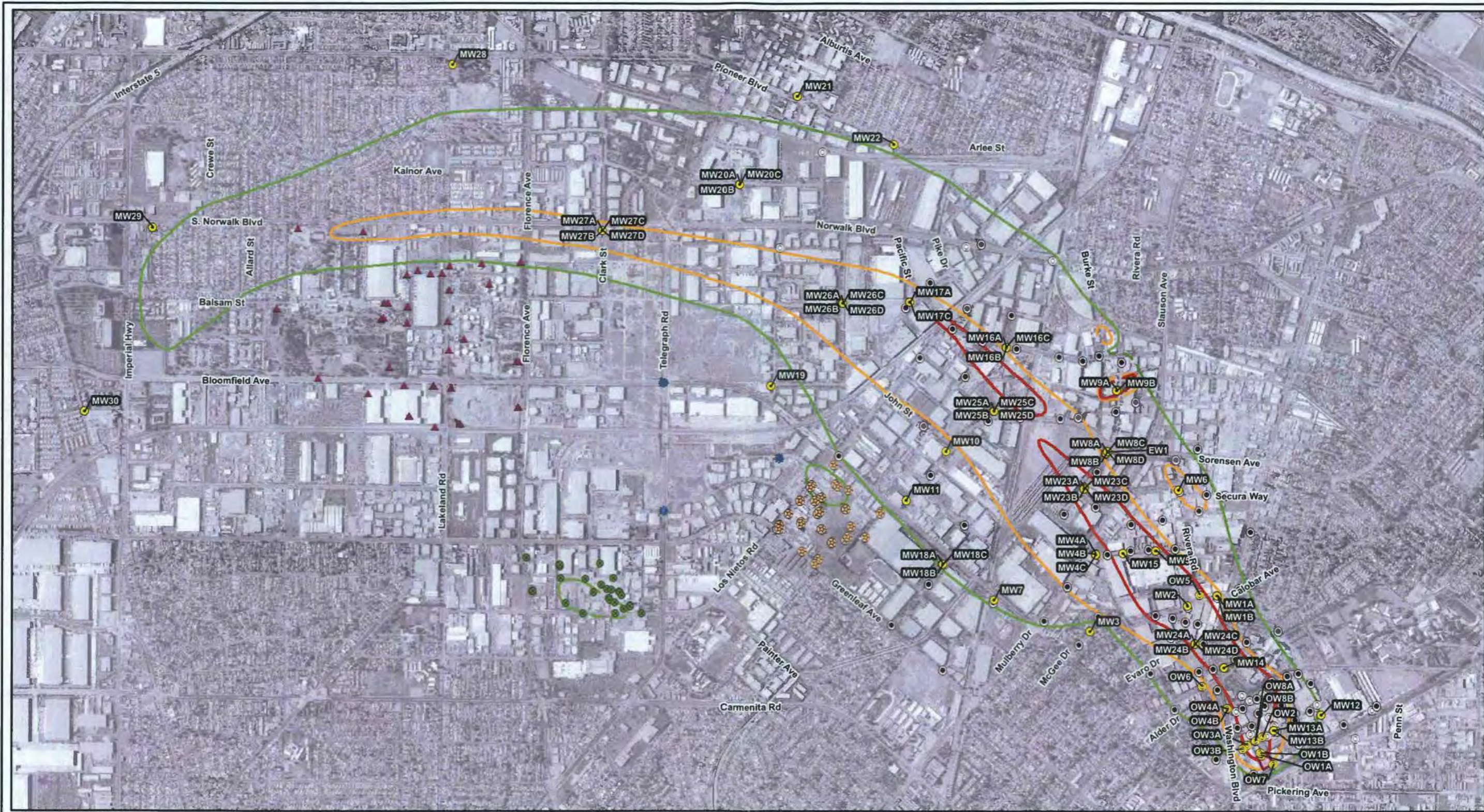
OU-3 Indoor Air: EPA conducted an indoor air sampling investigation in the vicinity of OU-1 and sampling results revealed that VOCs had migrated from contaminated soil and GW and accumulated in some nearby buildings. The indoor VOC levels were highest in Skateland, an indoor skating rink that was located adjacent to the former Omega property. In April 2006,

EPA directed OPOG to undertake an indoor air cleanup action at Skateland. However, in September 2006, OPOG purchased the Skateland property and in 2007 demolished the building, eliminating the need for the proposed indoor air cleanup action. EPA continues to monitor and investigate indoor air levels in the vicinity of OU1. In early 2009, EPA directed OPOG to implement temporary indoor air measures including air purifiers and increased air circulation at facilities adjacent to the former Omega property

OU-1 Soil & GW On Or Near Site: In September 2006, OPOG installed a series of GW extraction wells along Putnam Street, just south of the site. The GW pump and treat system (hydrogen peroxide, ozone, granular activated carbon) began operating in January 2008. This is an Interim Groundwater Remedy because eventually, it will be part of the OU-2 GW remediation effort. An SVE system (granular activated carbon and possibly hot air injection and dual phase extraction) is currently being designed to remove VOCs from the subsurface at the site and former Skateland property.

Procedures: USEPA has retained CH2M HILL to conduct site investigations and remediation of OU-2. OPOG manages investigations & remediation for OU-1 and OU-3, under the oversight of USEPA.

OU-2 Off-Site 4.2-Mile GW Plume: From the Remedial Investigation completed in early 2009, EPA concluded that there are ~20 suspected sources (not necessarily 20 PRPs) of GW contamination in OU-2, in addition to the Omega Chemical site, that are contributing to the OU-2 plume; suspected facilities include CENCO refinery, Foss Plating (specifically Cr VI), Angeles Chemical, and McKesson. *At the March 18, 2009 GW Contamination Forum meeting, EPA stated that the plume is probably limited to a maximum depth of 200 ft bgs.* Based on the period of Omega Chemical's operations, plume migration was calculated by EPA to be ~540 ft/yr. EPA is using Freon 11 and 113 as tracers to track the contamination caused by Omega Chemical. TPH and Cr VI detections are reportedly not related to former Omega Chemical operations. EPA suspects that vertical migration may be due to old agricultural or oil wells that have not been properly abandoned. EPA hopes to complete a Feasibility Study (FS) to evaluate potential cleanup alternatives for OU-2 groundwater by late 2009. EPA, DTSC, and RWQCB are now coordinating efforts for enforcement, remediation, and PRP involvement.



Legend

- EPA Monitoring Well
- Omega Potentially Responsible Parties Organized Group (OPOG) Monitoring Well
- Oil Field Reclamation Project (OFRP) Well
- Waste Disposal, Inc. (WDI) Well
- Ashland Chemical Well
- ▲ CENCO Wells
- ◆ Production Well
- Historical Boring Locations
 - Auger Boring
 - CPT Boring

Former Omega Facility

Composite PCE Plume Extent

- 5 ug/L (Dashed where Approximate)
- 100 ug/L (Dashed where Approximate)
- 500 ug/L (Dashed where Approximate)

Figure 2-1
Site Location Map of
Omega Monitoring Wells
 Omega Chemical Superfund Site

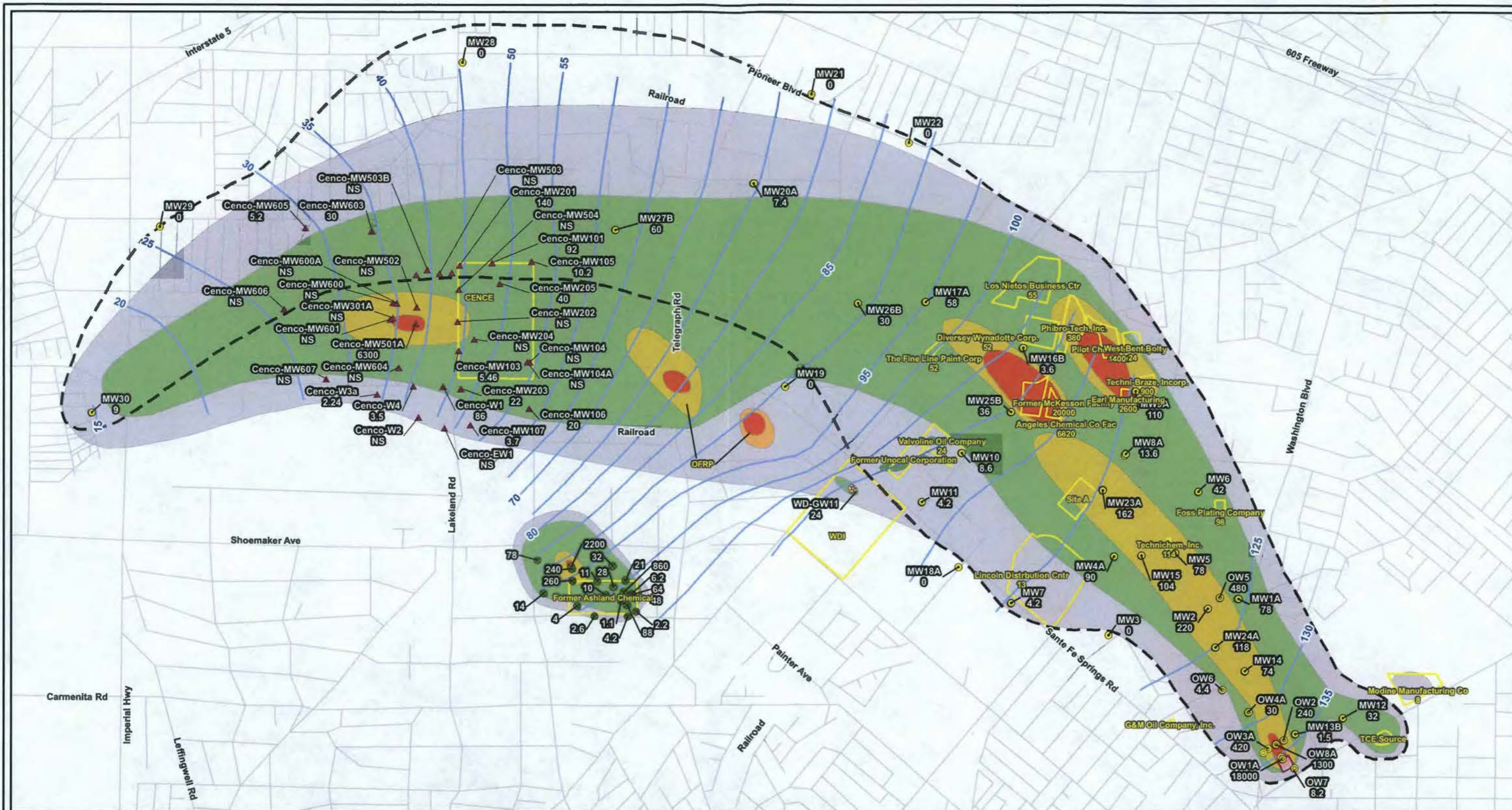
CH2MHILL

Date: May 30, 2008

Aerial Date: March 2004, USGS

0 1,600 3,200 Feet

N



Legend

- EPA Monitoring Well (July 2007)
- Omega Potentially Responsible Parties Organized Group (OPOG) Monitoring Well (August 2007)
- Waste Disposal, Inc. (WDI) Well (4th Quarter, 2002)

- Ashland Chemical Well (August 2007)
- ▲ CENCO Wells (November 2006)
- Water Level Contours July-August 2007
- Operable Unit 2 Boundary
- Former Omega Facility

- Approximate Facility Boundary
- Composite Exceedance Distribution**
- 1x MCL
- 10x MCL
- 100x MCL
- 1000x MCL

References:
 Ashland Chemical Co.: URS, 2008.
 Foss Plating: Winefield & Assoc., Inc., 2006.
 Lincoln Distribution Center: SCS Engineers, 1995.
 McKesson and Angeles Chemical Co. Facilities: DTSC, 2007.
 Modine Manufacturing: The Earth Technology Corporation, 1990.
 OFRP: McLaren/Hart, Inc., 1996.
 Phibro-Tech: Iris Environmental, 2006.
 Site B: Thorne, 1989.
 Site C: URS, 2003.
 Techni-Braze, Inc.: LFR, 2006.
 Unocal Corp.: Environmental Equalizers, 1998.



0 1,600 3,200 Feet

Figure 5-29
Integrated MCL Exceedance Map
 Omega Chemical Superfund Site

Notes: 1) NS - Not Sampled 3) E - Estimated Value 5) MCL exceedances were calculated from the most recent available groundwater analytical results for all compounds analyzed; the maximum exceedance for each location is shown. Contours represent the generalized distribution of MCL exceedances; each zone extent is approximate. OU2 extent outline is based on Omega Chemical COPCs. 6) Ashland Chemical well IDs may be found in Appendix N 8) Hexavalent Chromium concentrations were used where results for Total Chromium were not available.
 2) J - Estimated Value 4) U - Non-Detect 7) Concentrations are in ug/L

SCO \\GALT\PROJ\OMEGA\2009\MAPFILES\11X17_EXCEED.MXD

CH2MHILL

Date: 3/20/2009